

## *Ask the Vet:*

# **Testing for Food Ingredient Sensitivity Requires Patience**

**By Nancy Irvine, DVM – Daisy Hill Animal Hospital, Ltd.**

The simplest ideas sometimes result in complex endeavors. Many times in the past, clients have asked me as we begin examining their pet for a skin disease problem, "Do you think it could be his food?" More recently, clients will make a statement, "I was hoping the problem was his food, so I changed his diet, but he is still scratching, so that's not it."

More than 20 years ago, the news that some dogs and cats with skin or digestive disease improved when they ate lamb and rice-based diets already had spread to the public. Unfortunately, this wave of excitement encouraged several pet food manufacturers to highlight the "contains lamb and rice" claim.

Before my graduation, my dermatology professor advised that if I wanted to conduct a test to see if a patient's disease is caused by sensitivity to certain foods, then lamb could not be used as a test protein. The reason was that lamb had become too widespread and common in diets. The likelihood that the patient already had eaten a diet with lamb protein was too great.

As veterinarians committed to high-quality diagnostics to accurately guide therapy for our patients, we were forced to look for unique protein sources to test for suspected food ingredient sensitivity. Leading veterinary diet manufacturers helped by developing select novel protein diets featuring single protein and carbohydrate sources. At that point, we could be reasonably certain that we could test with protein sources that our patients had never eaten before. Some of the early versions included venison, salmon and duck.

Maybe five years or so later, the news of success spread widely and other pet food manufacturers identified this marketing opportunity. The marketing movement toward "natural" products with attractive wildlife photos has inspired the production of a vast array of untraditional diet flavors that fill retail shelves.

For a pet with dermatitis, a stepwise plan to eliminate the causes garners success. For example, fleas may cause itchiness, and the skin trauma from scratching may cause bacterial infection.

If the environment for the whole pet or just part of the pet (such as the armpits or belly) is hot and humid, then overgrowth of skin fungus may complicate the effort to resolve the dermatitis.

Most of the time, food ingredient sensitivity is not an underlying problem. However, it must be considered. Working through the problem smartly and in open communication with your veterinarian ultimately will uncover the causes.

Where food ingredient sensitivity is involved, patience is needed. Blood and skin allergy testing offer no direct information about food ingredient sensitivity. The only valid test is a food ingredient elimination trial, which involves feeding only a specifically formulated test diet for eight to 12 weeks. All other causes for skin disease must be completely controlled for the test interpretation to be accurate. In other words, if fleas, other skin parasites or skin infection persists, then the food elimination trial will have no value.

The test diet must be very specifically formulated to be complete and balanced but include one protein source and one carbohydrate source. It is most desirable to select a protein source that the pet never has eaten before. A few therapeutic diets have been created in which the protein is hydrolyzed into smaller peptide chains for the purpose of making the protein unrecognizable to the immune system. For some patients, this diet design is very effective, and for others it is not.

Likewise, your veterinarian may start your pet's elimination diet trial using venison as the protein but find after eight weeks that it is not working. A second trial using a different protein, perhaps kangaroo, might result in success two or three months later. Patience and strict adherence to the rules is necessary.

Flavored toothpastes, chewable medication, treats and any access to eating of anything other than the test diet must be eliminated during the trial. Your veterinarian has recommendations for specific medications and toothpastes that can be used without introducing unwanted protein into the trial.

If your pet has shown a favorable response to a trial to the extent that you and your veterinarian believe food ingredient sensitivity is indeed the correct diagnosis, then confirmation of this belief is the next step. Simply feed the old diet and watch closely for return of the symptoms of disease. My patients in the past have become symptomatic within one to seven days with this provocation. Most clients refuse to conduct this test. I do not blame them, but this test is the only real proof.

The finer points of determining if your pet might be sensitive to a food ingredient and of conducting the tests needed for determination should be discussed with your veterinarian. It is impossible to use the array of flashy advertised diets on retail shelves for testing. A recent study evaluating the content of four diets listing a single protein source on their labels demonstrated that three of the four contained one or more other proteins which were not on the label. The only effective test diets are manufactured specially and tested before and after manufacture. These sites are operated with dedicated production lines that are completely washed between runs. The process is expensive, but it matters to your pet if he needs a specific diet.

Many good diets exist for pets. Most pets do not have food ingredient sensitivity. Not all pets thrive well on the same diet or diets from the same manufacturer. I do encourage you to choose a diet for your pet that is both developed and manufactured by the same company. That company will have much better quality control from start to finish than a company whose product is manufactured where lots of other companies' diets are manufactured. When your pet has food ingredient sensitivity, the advice and information access that your veterinarian can provide for you is essential for success.

